APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,983	04/28/2005	Tomoyuki Yoshida	TDK-PAUS0006	3083

58937   7590   12/28/2009
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EXAMINER
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ART UNIT	PAPER NUMBER
3623	

MAIL DATE	DELIVERY MODE
12/28/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 April 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *4-28-05*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Summary

1.   This **Non-Final Rejection** is responsive to 28 April 2005. Currently

Claims 1-16 are pending in the application.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this
title.

Claim 15 is rejected under 35 U.S.C. 101 because the claimed invention

is directed to non-statutory subject matter.

Claim 15 is rejected under 35 U.S.C. 101 based on Supreme Court

precedent, and recent Federal Circuit decisions, the Office's guidance to

examiners is that a § 101 process must (1) be tied to another statutory class

(such as a particular apparatus) or (2) transform underlying subject matter (such

as an article or materials) to a different state or thing. In Re Bilski; Diamond v.

Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978);

Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S.

780,787-88 (1876).

An example of a method claim that would not qualify as a statutory

process would be a claim that recited purely mental steps. Thus, to qualify as a §

101 statutory process, the claim should positively recite the other statutory class

(the thing or product) to which it is tied, for example by identifying the apparatus

that accomplishes the method steps, or positively recite the subject matter that is

being transformed, for example by identifying the material that is being changed

to a different state.

Here, applicant's method steps, fail the first prong of the new Federal

Circuit decision since they are not tied to another statutory class and can be

performed without the use of a particular apparatus. Thus, **Claim 15** is non-

statutory since it lacks a tie to a particular machine or apparatus.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

Regarding Claims 1, 15 and 16, the claims recite "judging". The meaning

of this term is unclear and does not positively recite the limitations following. The

examiner suggests the term "determining".

Furthermore regarding these claims, the limitation "the new sets of

forecast information" – it is unclear which sets of forecast information this refers

to.

Additionally regarding Claims 3 and 4 the limitation is recite "**whose**

forecast lead times are consecutive to two or more corresponding actual

order quantities." It is not clear how lead times, which are represented by days

or periods of time, are consecutive to order quantities, which are represented by

numbers of items. The claims are indefinite.

Claims 2 and 5-14 are also indefinite because they inherit the deficiencies

of their respective parent claims.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   **Claims 1-13, 15 and 16** are rejected under 35 U.S.C. 103(a) as being

unpatentable over "Production Planning of Style Goods with High Setup Costs

and Forecast Revisions", Gabriel R. Bitran, Elizabeth A. Haas and Hirofumi

Matsuo, Operations Research, Vol. 34, No. 2 (Mar. - Apr., 1986), pp. 226-236

(hereinafter **Bitran**)

.

Regarding **Claim 1**, Bitran teaches:

[1] An order forecast system for deciding safe stock quantities

based on forecast information indicating required quantities for a plurality

of scheduled delivery dates or scheduled delivery periods, which system comprises:

a forecast storage section for storing a plurality of sets of past forecast information having different receive dates;

page 226 column 2, past information regarding forecasts for electronic items is stored – this is the basis for knowing the forecast accuracy for different items (i.e. as per the coefficient of variation).

an actual order quantity storage section for storing actual order quantities for each delivery date or delivery period;

page 226 column 2, since they are able to calculate the coefficient of variation, this means that both actual and forecast order quantities have been recorded (i.e. stored).

and a processing unit for using the past forecast information stored in the forecast storage section and the actual order quantities stored in the actual order quantity storage section to calculate the safe stock quantities by correcting required quantities in new sets of forecast information for which forecasts are to be made,

page 227 column 1 para 3, the problem Bitran is trying to solve is ensuring adequate inventory (i.e. adequate safety stock)

wherein the processing unit calculates a plurality of conversion coefficients that are ratios of one or more required quantities contained in the sets of past forecast information to one or more corresponding actual order quantities;

page 226 column 2, the coefficients of variation are ratios of the forecast

(i.e. required) to the actual orders quantities for different types of products.

Forecast accuracy is also a conversion coefficient (i.e a ratio of what was actually

sold to what was predicted to be sold).

calculates a standard deviation of the conversion coefficients whose

forecast lead times, defined as a period between forecast receive date and

scheduled delivery date, are the same;

judges a forecast lead time whose standard deviation or a value

derived therefrom does not exceed a predetermined threshold to be a valid

forecast lead time;

page 226 column 2, Bitran teaches that forecast accuracy (i.e. a

conversion coefficient) varies over time and by product. On page 227 column 1,

last para Bitran teaches that an assumption (i.e. a judgment) is made that

forecast error is assumed be constant and decreasing over time (from the earlier

discussion, this means that the std deviation of the forecast error for different

products (i.e. and their associated lead times) is determined to be decreasing

over time, that is, does not exceed a predetermined threshold.

calculates a forecast quantity of orders for each scheduled delivery

date or scheduled delivery period by performing an arithmetic operation

using, among the required quantities contained in the new sets of forecast

information, those that correspond to the valid forecast lead times, and the

conversion coefficients corresponding thereto;

calculates a margin for each scheduled delivery date or scheduled delivery period by performing an arithmetic operation using, among the required quantities contained in the new sets of forecast information, those that correspond to the valid forecast lead times, and the standard deviation of the conversion coefficients corresponding thereto;

and calculates the safe stock quantities for each scheduled delivery date or scheduled delivery period by adding to the forecast quantity of orders for each scheduled delivery date or scheduled delivery period the margin corresponding thereto

page 228 column 2, it is seen that Bitran calculates an optimization model which includes inventory holding cost in addition to the forecast for each product family (page 229 column 1, Bitran discusses using the forecast to calculate the production and inventory amounts, since they are attempting to schedule production to minimize costs, where those costs includes the production and inventory holding of items in various periods. Since Bitran discusses the costs of holding inventory as part of producing a forecast and then balancing shortage costs with the costs of holding inventory, Bitran calculates a forecast and then associates a margin with its associated costs to determine what the safety stock quantities should be. However, Bitran is not only performing a safety stock calculation but is trying to balance a variety of costs (and the associated product quantities) in order to minimize inventory holding costs balanced against losing revenue on stockouts because of variation in the forecast. Thus it is inherent in Bitran that the calculation of a safety stock is being performed by adding a

margin to a forecast quantity because Bitran acknowledges and incorporates into his model forecast variability (i.e. it is inherent that Bitran's model adds a margin to a forecast to determine a safety stock). If not inherent, Official Notice is taken that simple calculations of safety stock by adding a margin to a forecast amount is known in the art (because of uncertainty in forecasting). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to include a simple safety stock calculation since Bitran teaches that these factors are balanced against each other in determining an optimum production plan that minimizes inventory holding cost against the cost of stockouts.

Furthermore, Bitran does not teach using a computer with storage and a processor to store the data and perform the calculations, however, Official Notice is taken that this is old and well known in the art and would have provided a predictable result in combination with the teachings of Bitran in automating the model teachings by using a computer with a processor and memory with the well known advantage of the method steps being performed faster and more efficient since they are done with a computer.

Regarding **Claim 2**, Bitran teaches:

[2] The order forecast system as claimed in claim I, wherein the forecast quantity of orders is calculated by multiplying a required quantity contained in the new forecast information by an average value of a plurality of corresponding conversion coefficients.

Page 227 column 1 bottom – the assumption and inclusion into the model that forecast error is normally distributed means they are taking an average value

Regarding **Claim 3**, Bitran teaches:

[3] The order forecast system as claimed in claim 1, wherein the conversion coefficients are calculated as a ratio of two or more required quantities among the required quantities contained in the past forecast information whose forecast lead times are consecutive to two or more corresponding actual order quantities.

Page 227 column 1 last paragraph, Bitran teaches that the forecast accuracy (i.e. conversion coefficient) is a ratio of actual to forecast quantity demand for a given product whose lead times are measured consecutively in the planning horizon. Bitran notes that this conversion coefficient improves in accuracy over time from the beginning of the planning horizon to the end.

Regarding **Claim 4**, Bitran teaches:

[4] The order forecast system as claimed in claim 2, wherein the conversion coefficients are calculated as a ratio of two or more required quantities among the required quantities contained in the past forecast information whose forecast lead times are consecutive to two or more corresponding actual order quantities.

Page 227 column 1 last paragraph, Bitran teaches that the forecast accuracy (i.e. conversion coefficient) is a ratio of actual to forecast quantity

demand for a given product whose lead times are measured consecutively in the planning horizon. Bitran notes that this conversion coefficient improves in accuracy over time from the beginning of the planning horizon to the end

Regarding **Claim 5**, Bitran teaches:

[5] The order forecast system as claimed in claim 3, wherein the conversion coefficient is treated as the conversion coefficient corresponding to the forecast lead time among the two or more consecutive forecast lead times whose period is shortest.

As per claim 3 above, Bitran notes that the forecast accuracy, or conversion coefficient (i.e. the ratio between actual and forecast demand) improves as one moves through the planning horizon. In Bitran's model, the conversion coefficient of the last period in the planning horizon would provide a conversion coefficient corresponding to lead time whose period is shortest, i.e. the shortest time left in the planning horizon.

Regarding **Claim 6**, Bitran teaches:

[6] The order forecast system as claimed in claim 4, wherein the conversion coefficient is treated as the conversion coefficient corresponding to the forecast lead time among the two or more consecutive forecast lead times whose period is shortest.

As per claim 4 above, Bitran notes that the forecast accuracy, or conversion coefficient (i.e. the ratio between actual and forecast demand)

improves as one moves through the planning horizon. In Bitran's model, the

conversion coefficient of the last period in the planning horizon would provide a

conversion coefficient corresponding to lead time whose period is shortest, i.e.

the shortest time left in the planning horizon.

Regarding **Claim 7**, Bitran teaches:

**[7] The order forecast system as claimed in claim 1, wherein a
forecast lead time whose ratio of standard deviation to an average value of
a plurality of conversion coefficients corresponding thereto does not
exceed a predetermined threshold is judged to be a valid forecast lead
time.**

page 226 column 2, Bitran teaches that forecast accuracy (i.e. a

conversion coefficient) varies over time and by product. On page 227 column 1,

last para Bitran teaches that an assumption (i.e. a judgment) is made that

forecast error is assumed be constant and decreasing over time (from the earlier

discussion, this means that the std deviation of the forecast error for different

products (i.e. and their associated lead times) is determined to be decreasing

over time, that is, does not exceed a predetermined threshold.

Regarding **Claim 8**, Bitran teaches:

**[8] The order forecast system as claimed in claim 2, wherein a
forecast lead time whose ratio of standard deviation to an average value of**

a plurality of conversion coefficients corresponding thereto does not

exceed a predetermined threshold is judged to be a valid forecast lead

time.

page 226 column 2, Bitran teaches that forecast accuracy (i.e. a

conversion coefficient) varies over time and by product. On page 227 column 1,

last para Bitran teaches that an assumption (i.e. a judgment) is made that

forecast error is assumed be constant and decreasing over time (from the earlier

discussion, this means that the std deviation of the forecast error for different

products (i.e. and their associated lead times) is determined to be decreasing

over time, that is, does not exceed a predetermined threshold.

Regarding **Claim 9**, Bitran teaches:

[9] The order forecast system as claimed in claim 3, wherein a

forecast lead time whose ratio of standard deviation to an average value of

a plurality of conversion coefficients corresponding thereto does not

exceed a predetermined threshold is judged to be a valid forecast lead

time.

page 226 column 2, Bitran teaches that forecast accuracy (i.e. a

conversion coefficient) varies over time and by product. On page 227 column 1,

last para Bitran teaches that an assumption (i.e. a judgment) is made that

forecast error is assumed be constant and decreasing over time (from the earlier

discussion, this means that the std deviation of the forecast error for different

products (i.e. and their associated lead times) is determined to be decreasing

over time, that is, does not exceed a predetermined threshold

Regarding **Claim 10**, Bitran teaches:

[10] The order forecast system as claimed in claim 4, wherein a forecast lead time whose ratio of standard deviation to an average value of a plurality of conversion coefficients corresponding thereto does not exceed a predetermined threshold is judged to be a valid forecast lead time.

page 226 column 2, Bitran teaches that forecast accuracy (i.e. a

conversion coefficient) varies over time and by product. On page 227 column 1,

last para Bitran teaches that an assumption (i.e. a judgment) is made that

forecast error is assumed be constant and decreasing over time (from the earlier

discussion, this means that the std deviation of the forecast error for different

products (i.e. and their associated lead times) is determined to be decreasing

over time, that is, does not exceed a predetermined threshold

Regarding **Claim 11**, Bitran teaches:

[11] The order forecast system as claimed in claim 5, wherein a forecast lead time whose ratio of standard deviation to an average value of a plurality of conversion coefficients corresponding thereto does not

exceed a predetermined threshold is judged to be a valid forecast lead time.

page 226 column 2, Bitran teaches that forecast accuracy (i.e. a conversion coefficient) varies over time and by product. On page 227 column 1, last para Bitran teaches that an assumption (i.e. a judgment) is made that forecast error is assumed be constant and decreasing over time (from the earlier discussion, this means that the std deviation of the forecast error for different products (i.e. and their associated lead times) is determined to be decreasing over time, that is, does not exceed a predetermined threshold

Regarding **Claim 12**, Bitran teaches:

[12] The order forecast system as claimed in claim 6, wherein a forecast lead time whose ratio of standard deviation to an average value of a plurality of conversion coefficients corresponding thereto does not exceed a predetermined threshold is judged to be a valid forecast lead time.

page 226 column 2, Bitran teaches that forecast accuracy (i.e. a conversion coefficient) varies over time and by product. On page 227 column 1, last para Bitran teaches that an assumption (i.e. a judgment) is made that forecast error is assumed be constant and decreasing over time (from the earlier discussion, this means that the std deviation of the forecast error for different products (i.e. and their associated lead times) is determined to be decreasing over time, that is, does not exceed a predetermined threshold

Regarding **Claim 13**, Bitran teaches:

[13] The order forecast system as claimed in claim 1, wherein the margin for a scheduled delivery date or scheduled delivery period is calculated by multiplying required quantity data contained in the new forecast information by a corresponding conversion coefficient standard deviation to obtain an order quantity standard deviation;

Page 226 column 1-page 227 column 2, Bitran teaches the variation in forecast accuracy in combination with the amount of product to be produced in each period in the planning horizon.

calculating a cumulative margin for the scheduled delivery date or scheduled delivery period based on the forecast order quantity standard deviation and an allowable stockout rate;

and subtracting from the cumulative margin for the scheduled delivery date or scheduled delivery period a cumulative margin corresponding to the preceding scheduled delivery date or scheduled delivery period.

Page 227 column 2, page 228 column 2, page 299 column 1, Bitran teaches balancing building inventory in each production period with the cost of holding the inventory and the cost of shortages (i.e. stockouts). Bitran notes that forecast deviation is taken into account in the amount of margin built into the production schedule for each period of the planning period. Thus the overall

margin of production built during the planning period (where Bitran's margin is the amount of inventory to avoid shortages or stockouts) is a cumulative margin that adds in the margin or excess inventory built in every period cumulative up until the end of the planning period.

Claims 15 and 16 recited similar limitations to those addressed by the rejection of **Claims 1-13** above, and are therefore rejected under the same rationale.

6.   **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Bitran** in view of "Establishing the order quantity when the amount received is uncertain" caltech.edu, EA Silver - INFOR, 1976 - its.caltech.edu (hereinafter Silver).

Regarding **Claim 14**, Bitran teaches determining a safety stock margin as part of an optimization which balances inventory carrying costs against shortages of inventory in scheduling production to meet a forecast during a planning period. Bitran teaches that inventory is built during successive periods in a planning time span (planning horizon) and teaches where demand has variability (i.e. is uncertain due to its variable nature). However Bitran does not teach where the margin is calculated based on an inventory calculation as per below, however Silver teaches :

[14] The order forecast system as claimed in claim 13,

wherein the cumulative margin for a scheduled delivery date or scheduled delivery period is calculated by adding a value obtained by squaring the forecast order quantity standard deviation corresponding to the predetermined scheduled delivery date or scheduled delivery period to a value obtained by squaring the forecast order quantity standard deviation corresponding to the scheduled delivery date or scheduled delivery period preceding the predetermined scheduled delivery date or scheduled delivery period; and multiplying the square root of the value obtained by the addition by a constant based on a stockout rate.

Silver teaches that EOQ calculations add in the square of the standard deviation (see equation 7 on page 35).

This solves for the best order quantity

$$Q^* = \frac{1}{b}\sqrt{\frac{2AD}{vr} + \sigma^2}\qquad(7)$$

or

$$\frac{Q^*}{EOQ} = \frac{1}{b}\sqrt{1 + \left(\frac{\sigma}{EOQ}\right)^2}.\qquad(8)$$

The solution of equation (7) is indeed the cost-minimizing value of Q because

$$\frac{d^2\,ECPUT(Q)}{dQ^2}$$

Since Bitran teaches that there are multiple planning periods with which to build inventory and Silver teaches the above formula for one period, it would have been obvious to one of ordinary skill in the art to use a multi-period approach to adding squared S-dev's to which a square root thereof is taken and a constant multiplied to the result, because it is a predictable combination of the terms used to calculate EOQ quantities for a single time period.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

US 6401070 by McManus discloses a method for improving forecasts by

removing bias.

US 6205431 by Willemain teaches system for forecasting intermittent

demand

US 5963919 by Brinkley teaches a method for strategic inventory

management

The effect of parameter uncertainty on forecast variances and confidence

intervals…

M Sampson - Journal of Applied Econometrics, 1991 - jstor.org

In Search of One-Number Forecasting, 2003

K Peterson, L Geishecker, BL Eisenfeld - Gartner Research Mote -

bus.umich.edu

Forecast Evaluation

Joel S. Demski and Gerald A. Feltham

The Accounting Review, Vol. 47, No. 3 (Jul., 1972), pp. 533-548

Hierarchical integration of production planning and scheduling- ▶mit.edu [PDF]

AC Hax, HC Meal - 1973 - dspace.mit.edu

Hierarchical production planning- ▶mit.edu [PDF]

GR Bitran, D Tirupati - 1989 - dspace.mit.edu

Data mining on time series: an illustration using fast-food restaurant franchise

data- ▶scausa.com [PDF]

LM Liu, S Bhattacharyya, SL Sclove, R Chen, ... - Computational Statistics and

Data Analysis, 2001 – Elsevier

Reducing the Cost of Demand Uncertainty through Accurate Response to Early

Sales

Marshall Fisher and Ananth Raman

Operations Research, Vol. 44, No. 1, Special Issue on New Directions in

Operations Management (Jan....

Hierarchical production planning and scheduling with random demand and ...

MZ Meybodi, BL Foote - Annals of Operations Research, 1995 – Springer

Collaboration data modeling: CPFR implementation guidelines

M Johnson - 1999 Annual Conference Proceedings of the Council of …, 1999 -

vics.org

The economic production quantity (EPQ) with shortage derived algebraically

LE Cárdenas-Barrón - International Journal of Production Economics, 2001 -

Elsevier

"Using the deterministic EOQ formula in stochastic inventory control", S Axsäter -

Management Science, 1996 - jstor.org

Determining safety stock in the presence of stochastic lead time and demand

jstor.org [PDF]

GD Eppen, RK Martin - Management Science, 1988 - jstor.org

Forecasting demand variation when there are stockoutsjstor.org [PDF]

PC Bell - The Journal of the Operational Research Society, 2000 - jstor.org

MRP performance effects due to forecast bias and demand uncertainty

ST Enns - European Journal of Operational Research, 2002 – Elsevier

Economic and statistical measures of forecast accuracycam.ac.uk [PDF]

CWJ Granger, MH Pesaran - Journal of Forecasting, 2000 - econ.cam.ac.uk

8.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Jonathan G. Sterrett whose telephone

number is 571-272-6881. The examiner can normally be reached on 8-6.

        If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Beth Boswell can be reached on 571-272-6737. The fax

phone number for the organization where this application or proceeding is

assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free).

JGS 12-22-09

/Jonathan G. Sterrett/

Primary Examiner, Art Unit 3623